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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Maik Binas

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EXAMINER

DONADO, FRANK E

ART UNIT

PAPER NUMBER

2617

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11/09/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,975	Applicant(s) BIENAS ET AL.	
	Examiner FRANK DONADO	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 20, 21, 24, 25, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 22-24 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 8/13/10 has been entered. Claims 15 and 27 have been amended. Claims 1-14 and 16-19 have been cancelled. No claims have been added. Claims 15 and 20-28 are currently pending in this application, with claims 15 and 27 being independent.

Claim Objections

2. Claim 22 is objected to because of the following informalities: Please change **“...sending a radio information signal...”** to **“...sending the radio information signal...”**, as there is antecedent basis for the radio information signal in claim 15. Appropriate correction is required.

3. Claim 24 is objected to because of the following informalities: **“...using the position information included in each radio information signal”** should be placed after **(OTDOA)**, since only the RTT and OTDOA methods involve each radio information signal. Appropriate correction is required.

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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7. Claim 15, and 24-25 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara (**US PG Publication 2004/0203923**), in view of Kurihara (**US PG Publication 2005/0099942**).

Regarding claim 15, Shinohara teaches a method of determining a local position of a first mobile radio communication terminal device in a radio cell of a radio network of a radio communication system, wherein the radio cell is fixed by a base station, the method comprising: before emitting a retrieval signal, emitting a preceding inquiry signal from the first mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the local position of the first mobile radio terminal device, wherein the preceding inquiry signal is a broadcast radio signal (**A user of a mobile phone transmits a request response that is broadcast from said mobile phone to a plurality of wireless terminal requesting that each terminal send a response to said request, where said response requests indicate said terminals are available to assist with determining the position of said mobile phone, Paragraph 56, lines 1-5, Paragraphs 58-60, Paragraph 61, lines 1-7 and Paragraph 11, lines 1-5**); transmitting, from the first mobile radio communication terminal device, after receipt of the acknowledgement signal, a retrieval signal retrieving position information of the second mobile radio communication terminal device that sent the received acknowledgement signal (**After receiving said responses from said terminals, said user of mobile phone selects one of said terminals to transmit back positional information, Paragraphs 62-65**);

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transmitting position information by at least one radio signal from at least one second mobile radio communication terminal device, the location of which is known either to the at least one second mobile radio communication terminal device or to the radio network, and which is either in the radio cell or in another radio cell, the at least one radio signal being transmitted to the first mobile radio communication terminal device via either a direct radio connection or an indirect radio connection via the radio network (**Said selected one of said terminals transmits back positional information of said selected terminal, where said positional information of said selected terminal is stored by said selected terminal, said selected terminal is within a communication area of said mobile phone, and said selected terminal transmits said position to said mobile phone, Paragraph 65 and Paragraph 59**). Shinohara does not teach inferring a distance between the first mobile radio communication terminal device and the at least one second mobile radio communication terminal device on the basis of the signal propagation time of the at least one radio signal. Kurihara teaches inferring a distance between the first mobile radio communication terminal device and the at least one second mobile radio communication terminal device on the basis of the signal propagation time of the at least one radio signal (**A distance between a first and second wireless unit is obtained from a signal propagation time between said first and second wireless unit, Paragraph 29**). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Shinohara to include this feature for the benefit of transmission efficiency.

Regarding claim 24, Shinohara, in view of Kurihara, teaches a method according to claim 15. Shinohara further teaches calculating the position of the first mobile radio communication terminal device via a Round Trip Time (RTT), an Observed Time Difference of Arrival (OTDOA), and/or a Global Positioning System (GPS) position device in the first mobile radio communication terminal device using the position information included in each radio information signal **(Said requesting cell phone comprises a GPS receiver for determining its position, Paragraph 86).**

Regarding claim 25, Shinohara, in view of Kurihara, teaches a method according to claim 24. Shinohara further teaches, in the calculating, position information received by the first mobile radio communication terminal device is used **(Said position is determined by receiving position information, Paragraph 86).**

Regarding claim 27, Shinohara teaches a radio communication terminal device, comprising: an inquiry unit using a broadcast signal as a preceding inquiry signal for requesting information of readiness to participate in the position determination and .position information from at least one mobile radio communication terminal device located in a radio cell of a radio network of a radio communication system or in a different radio cell, wherein the radio cells are fixed by base stations **(A user of a mobile phone transmits a request response that is broadcast from said mobile phone to a plurality of wireless terminal requesting that each terminal send a response to said request, where said response requests indicate said terminals are available to assist with determining the position of said mobile phone, and**

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said network includes a base station, Paragraph 56, lines 1-5, Paragraphs 58-60, Paragraph 61, lines 1-7 and Paragraph 11, lines 1-5), a position of the at least one mobile radio communication terminal device being known to either the at least one mobile radio communication terminal device or to the radio network, a receiving unit receiving at least one radio information signal respectively from the at least one mobile radio communication terminal device and evaluating the received at least one radio information signal (Said selected one of said terminals transmits back positional information of said selected terminal, where said positional information of said selected terminal is stored by said selected terminal, said selected terminal is within a communication area of said mobile phone, and said selected terminal transmits said position and data type information to said mobile phone to be processed and displayed by said mobile phone, Paragraph 65 and Paragraph 59 and Figure 4); each radio information signal including acknowledged information of the readiness to participate in the position determination or position information of the known position of the respective at least one mobile communication terminal device sending the radio information signal (Said response requests indicate said terminals are available to assist with determining the position of said mobile phone, where, after receiving said responses from said terminals, said user of mobile phone selects one of said terminals to transmit back positional information, Paragraphs 62-65), and wherein the at least one radio information signal is transmitted via either a direct radio connection or an indirect radio connection via the radio network (Said selected terminal transmits said position and data type information to said mobile

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phone, Paragraph 65). Shinohara does not teach a distance between the first radio communication terminal device and the at least one mobile radio communication terminal device is inferred on the basis of the signal propagation time of the at least one radio signal. Kurihara teaches a distance between the first radio communication terminal device and the at least one mobile radio communication terminal device is inferred on the basis of the signal propagation time of the at least one radio signal **(A distance between a first and second wireless unit is obtained from a signal propagation time between said first and second wireless unit, Paragraph 29).** It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Shinohara to include this feature for the benefit of transmission efficiency.

Regarding claim 28, Shinohara, in view of Kurihara, teaches the radio communication terminal device of claim 27. Shinohara further teaches a radio communication system comprising the radio communication terminal device of claim 27 **(Said mobile phone of claim 27 is a radio communication terminal).**

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara, in view of Kurihara, and further in view of Dolwin **(US PG Publication 2003/0129977).**

Regarding claim 20, Shinohara, in view of Kurihara, teaches a method according to claim 15. Shinohara, in view of Kurihara, does not teach each second mobile radio communication terminal device sends the one radio information signal within a predetermined response period for each respective second mobile radio communication terminal device. Dolwin teaches each second mobile radio communication terminal device sends the one radio information signal within a predetermined response period for each respective second mobile radio communication terminal device **(During an emergency, a mobile phone sends a request to locate said mobile phone that is broadcast to all other mobile devices in the area, where a response is received from each of said other devices within a predetermined response period, Paragraph 5 and Paragraph 9, lines 1-4)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Shinohara, in view of Kurihara, to include this feature for the benefit of security.

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara, in view of Kurihara, and further in view of Muhonen, et al **(US PG Publication 2003/0186710)**. From now on, Muhonen, et al, will be referred to as Muhonen.

Regarding claim 21, Shinohara, in view of Kurihara, teaches a method according to claim 15. Shinohara, in view of Kurihara, does not teach a predetermined minimum

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accuracy of a position of each second mobile radio communication terminal device is a condition for each respective second mobile radio communication terminal device to send the acknowledgement signal. Muhonen teaches a predetermined minimum

accuracy of a position of each second mobile radio communication terminal device is a condition for each respective second mobile radio communication terminal device to send the acknowledgement signal **(A mobile station sends a location request**

received by a plurality of other mobile stations, where, depending on said

request, only those of said other mobile stations within a defined area will

respond to said request with an acknowledgment, and said location request

includes accuracy as a quality of service (QoS) parameter, Paragraph 57 and

Paragraph 43, lines 8-10). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Shinohara, in view of Kurihara, to include this feature for the benefit of transmission efficiency.

Allowable Subject Matter

10. Claims 22, 23 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments, filed 8/13/10, with respect to the objection of claim 15 have been fully considered and are persuasive. The objection of claim 15 has been withdrawn.

12. Applicant's arguments, filed 8/13/10, with respect to the rejection(s) of claim(s) 15 and 20-28 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the references above.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US PG Publication 2004/0214584 refers to a method and system for managing cooperative positioning among wireless transmit/receive units.

US Patent No. 7,151,539 refers to a method, apparatus, and machine-readable medium for providing indication of location service availability and the quality of available location services.

US PG Publication 2003/0186710 refers to service provision in a communication system.

US PG Publication 2002/0175855 refers to autonomous calibration of a wireless-global positioning system.

US Patent No. 7,197,322 refers to a method and system for facilitating location-based services.

US Patent No. 6,287,200 refers to relative positioning and virtual objects for mobile devices.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK DONADO whose telephone number is (571) 270-5361. The examiner can normally be reached Monday-Friday, 9:30 am-6 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-6361.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-273-8300.

/Frank Donado/
Art Unit 2617

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617